#18 Appeal Brief JB 10/6/01

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellants:	Robert A. MacDonald Robert J. Race	Attorney Docket: KEY1019US
Serial No.:	09/312,352	Group Art Unit: 3672
Filed:	May 14, 1999	Examiner: William P. Neuder
For:	RETAINING WALL BLOCK	

Assistant Commissioner for Patents
BOX AF
Fee
Washington, D.C. 20231

Dear Sir:

APPEAL BRIEF

1. Real Party in Interest

The subject application is assigned to Keystone Retaining Wall Systems, Inc., 4444 West 78th Street, Bloomington, Minnesota 55435.

2. Related Appeals and Interferences

There are no related appeals or interferences which will directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

Certificate of Mailing/Transmission (37 C.F.R. 1.8(a))

I hereby certify that the document is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Assistant Commissioner for Patents, Washington, D.C. 20231 on

Date: September 26, 2001 **Signature:** Jodi Jung

Name: Jodi Jung

3. Status of Claims

Claims 1 and 3 to 15 are pending. Claims 1 to 15 were originally filed in this application. Claim 2 was canceled and claims 1, 5, 8, 12, 13, and 14 were amended in an Amendment and Response dated January 19, 2001. Claims 1 and 3 to 15 were finally rejected in the March 1, 2001 Office Action and the rejection of these claims is appealed.

4. Status of Amendments

No amendments were filed subsequent to final rejection.

5. Summary of Invention

The present invention (as shown in Figures 1 to 7, 11, and 12) is a symmetrical retaining wall block (1) in which neck wall members (14 and 15), pin holes (16 and 17) and pin receiving cavities (18 and 19) are positioned such that a first plane (P1, parallel to the plane of symmetry) passes through the first pin receiving cavity, the first pin hole and the first neck wall member and a second plane (P2, parallel to the plane of symmetry) passes through the second pin receiving cavity, the second pin hole and the second neck wall member. Page 7, lines 13 to 18. The first and second planes are located approximately midway between the plane of symmetry and the outermost point of the side wall faces. Page 8, lines 21 to 23. The pin receiving cavities have a rear wall extending generally perpendicularly to the plane of symmetry. Page 9, lines 2 and 3.

The block also has third and fourth pin holes in the body portion that open onto the top face and receive a pin (see element 51 in Figure 10.). A free end of the pin protrudes beyond the top face. These pin holes (29 and 30) are disposed

on the first and second planes forward of the first and second pin holes so as to provide a reduced or zero predetermined setback. Page 10, lines 1 to 3 and Figures 1 to 4. The side wall faces (6 and 7) generally taper from the front face (4) to the rear face (5). Page 11, lines 15 to 17 and Figures 1 and 2. The head portion has first and second ears extending laterally beyond the first and second neck wall members, respectively, and the ears are provided with a notch to enable the ears to be knocked off the head portion. Page 11, lines 19 to 24.

The present invention is a retaining wall comprising at least one lower course and at least one upper course, each course comprising a plurality of blocks laid in a running bond pattern. Page 11, lines 14 and 15, and Figures 8, 9, and 11 to 16. The wall is straight (page 11, line 14), curved (page 11, line 14), or serpentine (page 11, line 15). The wall may be reinforced with rebar and grouting, a length of the rebar passing through each of at least one of the cavities, each length of the rebar being secured in the respective the cavity with the grout. Page 12, lines 3 to 7.

The retaining wall may incorporate at least one post is secured in the cavity with grout. Page 12, lines 25 to 27. The wall may incorporate a geogrid tie-back between two adjacent courses, secured with the pins passing through apertures of the geogrid. Page 12, lines 14 to 17. The wall may further incorporate a pilaster formed of a column of the blocks set forward from the remainder of the wall. Page 13, lines 2 to 5.

6. Issues

Whether claims 1 and 3 to 15 are unpatentable under 35 U.S.C. § 103(a) as being obvious over Maguire et al. (U.S. Patent No. 5,951,210) in view of Dawson (U.S. Patent No. 5,913,790). Copies of these patents are enclosed.

7. Grouping of Claims

The claims stand separately except for the following groups:

claims 1 and 6; and

claims 8, 9, 10, and 11.

8. Argument

Rejection of claims 1 and 3 to 15 under 35 U.S.C. § 103(a) over Maguire et al. (U.S. Patent No. 5,951,210) in view of Dawson (U.S. Patent No. 5,913,790).

Claims 1 and 3 to 15 have been rejected under 35 U.S.C. § 103(a) as being obvious over Maguire et al. (U.S. Patent No. 5,951,210) in view of Dawson (U.S. Patent No. 5,913,790). This rejection of the claims is erroneous.

A. Claims 1 and 3 to 7.

Claims 1 and 3 to 7 are directed to a retaining wall block. Claim 1 requires that the block includes first and second neck wall members, pin holes and pin receiving cavities. Claim 1 further requires not only that these elements be present but also that they be aligned in a particular manner. Specifically, claim 1 requires that a first plane parallel to a plane of symmetry of the block pass through the first pin receiving cavity, first pin hole and first neck wall member and that a second plane parallel to the plane of symmetry pass through the second pin receiving cavity, second pin hole, and second neck wall member. Neither Maguire et al. nor

Dawson, taken together or alone, teach or describe a block having these elements arranged in that manner.

Dawson shows a block (Fig. 1) having pin holes (36, 38) and pin receiving cavities (40) which are laterally offset from the pin holes. However, Dawson does not teach the block of claim 1, which specifically requires that the pin holes and pin receiving cavities be aligned along a plane parallel to the axis of symmetry of the block, or further that the plane pass through a neck wall member.

Maguire et al. describe a retaining wall block (Figs. 1 and 2) having knobs (32) on top surface (22) extending upwardly to be received in grooves (30) on the bottom surface (24) of a block in an upper course (Fig. 3). The Examiner states "[i]t would have been considered obvious to one having ordinary skill in the art at the time the invention was made to have substituted the aligning pins and pin cavities of Dawson for the aligning concrete pins and slots of Maguire et al., since they are equivalent parts for performing equivalent functions." In fact, Maguire et al. teaches away from this substitution. Maguire et al. point to the difficulties and disadvantages of prior art blocks having pin connection systems and walls made therefrom at Column 1, lines 16 to 27 and lines 43 to 47 and again at Column 4, lines 20 to 31. Specifically, Maguire et al. teach away from the use of pins in a retaining wall block for the purpose of interconnecting the blocks when forming a retaining wall and state that an object of their invention is to overcome the disadvantages of such prior art blocks. These disadvantages are stated to include the requirement of significant on-site labor, the careful alignment which is required, and the difficulty of securing each block element with pins.

Even if the Examiner is correct that it would be obvious for a person of skill in the art to substitute the aligning pins and pin cavities of Dawson for the concrete pins and slots of Maguire et al., there is no disclosure in either reference that would instruct the person of skill in the art to align the pin holes and pin

receiving cavities along first and second planes which are parallel to a plane of symmetry of the block as required by claim 1. For one of skill in the art to arrive at the present retaining wall block (claim 1) one would have to examine the teachings of Maguire et al. which indicate that pin connection systems are undesirable, ignore this teaching, take some of the elements from the Dawson block (i.e., pin holes and pin cavities), rearrange those elements in a manner not taught by either Maguire et al. or Dawson (in Dawson, the pin holes and pin receiving cavities are offset and are not positioned along a plane parallel to a plane of symmetry) and then combine them with the block disclosed in Maguire et al. The only way a person of skill in the art would rearrange and combine elements in this manner is through the use of hindsight, which is an improper basis for rejecting these claims.

Appellants reassert that, absent hindsight, there is no reason for one of ordinary skill in the art to combine the pin holes and the pin cavities of the Dawson retaining wall block with the retaining wall block of Maguire et al. nor to align those pin holes and pin cavities along first and second planes parallel to a plane of symmetry of the block specifically as required by claim 1.

Claim 3 depends from claim 1 and adds the further limitation that the first and second planes are located approximately midway between the plane of symmetry and laterally outermost points of the first and second side wall faces. The Examiner's rejection of claim 3 based on the combination of Maguire et al. with Dawson is erroneous. As stated above, neither Dawson nor Maguire et al. teach alignment of pin holes, pin receiving cavities and neck wall members along first and second planes which are parallel to a plane of symmetry of the block. Therefore, they clearly do not teach nor disclose that the first and second planes be located as required by claim 3.

Claim 4 depends from claim 1 and adds the further limitation that the first and second pin receiving cavities each have a rear wall extending generally perpendicularly to the plane of symmetry. The Examiner's rejection of claim 4 based on the combination of Maguire et al. with Dawson is erroneous. Neither Dawson nor Maguire et al. teach pin receiving cavities having a rear wall extending generally perpendicularly to the plane of symmetry.

Claim 5 depends from claim 1 and adds the further limitation of third and fourth pin holes each disposed in the body portion and opening onto the top face for receiving a pin with a free end of the pin protruding beyond the top face, the third and fourth pin holes being disposed on the first and second planes forward of the first and second pin holes so as to provide a reduced or zero predetermined setback. The Examiner's rejection of claim 5 based on the combination of Maguire et al. with Dawson is erroneous. The Examiner stated that Dawson's block also has a second set of pin holes, that is, that third and fourth pin holes are known in the art. Appellants acknowledge that third and fourth pin holes are known in the art. What is not known, however, is the particular arrangement of the four pin holes, two pin receiving cavities, and two neck wall members along first and second planes parallel to the plane of symmetry as required by claim 5.

Claim 7 depends from claim 1 and adds the further limitation that the head portion has first and second ears extending laterally beyond the first and second neck wall members and that the first and second ears are provided with a notch to enable the ears to be knocked off the head portion. The Examiner's rejection of claim 7 based on the combination of Maguire et al. with Dawson is erroneous. As stated above, neither Dawson nor Maguire et al. teach first and second ears extending beyond the neck wall members having notches to enable the ears to be knocked off the head portion. The Examiner rejected claim 7 stating that the use of notches to form weak links in concrete blocks is old and well known.

Appellants respectfully disagree, and point out that virtually any invention comprises some "known" elements. It is the manner in which these elements are combined that produces an invention. The presence of such notches in the present inventive block is an additional limitation which further distinguishes over Maguire et al. and Dawson.

B. Claims 8 to 15

Claim 8 is directed to a retaining wall. Claim 8 requires that the retaining wall comprise blocks which include all the limitations recited in Claim 1 and discussed above. The Examiner's rejection of claim 8 based on the combination of Maguire et al. with Dawson is erroneous. Neither Maguire et al. nor Dawson teach a wall as recited by claim 8 because neither reference teaches the block as recited by claim 8 and as discussed above with respect to claim 1. Further, claim 8 requires that the wall be constructed using first and second pins disposed in first and second pin holes and having first and second free ends which are received in pin receiving cavities of first and second blocks in an upper course. This results in a continuous cavity being defined by each opening of vertically aligned blocks in the upper course of blocks communicating with side voids of vertically adjacent blocks in the lower course. Neither Maguire et al. nor Dawson disclose or teach a retaining wall having these features.

Claim 12 depends from claim 8 and adds the further limitation that the retaining wall is reinforced with rebar and grout, a length of the rebar passing through the continuous cavity, the rebar being secured in the continuous cavity with the grout. The Examiner rejected claim 12 on the basis that the incorporation of known elements does not constitute allowable subject matter. Appellants respectfully disagree with this rejection, and point out that virtually any invention comprises "known" elements. It is the manner in which these elements are

combined that produces an invention. The Examiner's rejection of claim 12 based on the combination of Maguire et al. with Dawson is erroneous. Neither Maguire et al. nor Dawson, taken together or alone, teach a wall as recited by claim 12 that is constructed to define a continuous cavity which can be reinforced with rebar and grout.

Claim 13 depends from claim 8 and adds the further limitation that the retaining wall incorporates at least one post extending into the continuous cavity and protruding from the upper course, the at least one post being secured in the continuous cavity with grout. The Examiner rejected claim 13 on the basis that the incorporation of known elements does not constitute allowable subject matter. Appellants respectfully disagree with this rejection, and point out that virtually any invention comprises "known" elements. It is the manner in which these elements are combined that produces an invention. The Examiner's rejection of claim 13 based on the combination of Maguire et al. with Dawson is erroneous. Neither Maguire et al. nor Dawson, taken together or alone, teach a wall as recited by claim 13 that is constructed to define a continuous cavity incorporating a post secured in the cavity by grout.

Claim 14 depends from claim 8 and adds the further limitation that the retaining wall incorporates a geogrid tie-back disposed between the upper and lower courses, the geogrid tie-back having apertures and being secured with at least one of the first and second pins passing through the apertures thereof. The Examiner's rejection of claim 14 based on the combination of Maguire et al. with Dawson is erroneous. Neither Maguire et al. nor Dawson, taken together or alone, teach a wall with the combination of features required by claim 14 and that further includes a geogrid tie-back.

Claim 15 depends from claim 8 and adds the further limitation that the retaining wall incorporates a pilaster formed of a column of the blocks set forward

from the remainder of the wall. The Examiner rejected claim 15 on the basis that the incorporation of known elements does not constitute allowable subject matter. The Examiner's rejection of claim 15 based on the combination of Maguire et al. with Dawson is erroneous. Neither Maguire et al. nor Dawson, taken together or alone, teach a wall with the combination of features required by claim 15 and which can be constructed to form a pilaster.

Accordingly, Appellants respectfully request that the rejection of claims 1 and 3 to 15 under 35 U.S.C. § 103(a) be withdrawn.

9. Appendix

The appealed claims are presented in the attached appendix.

Respectfully submitted,

Date: 9/26/01

By _____

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Appendix

1. (Amended) A retaining wall block having parallel top and bottom faces, a front face, a rear face, first and second side wall faces and a vertical plane of symmetry extending between the front and rear faces, the block comprising:

a body portion including the front face,

a head portion including the rear face,

a neck portion connecting the body portion and the head portion, the body, head and neck portions each extending between the top and bottom faces and between the first and second side wall faces,

an opening extending through the neck portion from the top face to the bottom face, the opening dividing the neck portion into first and second neck wall members extending rearwardly from the body portion to the head portion,

first and second pin holes each disposed in the body portion and opening onto the top face, the first and second pin holes being configured for receiving a pin with a free end of the pin protruding beyond the top face,

first and second pin receiving cavities each disposed in the body portion and opening onto the bottom face, the first and second pin receiving cavities being configured for receiving the free end of a pin received in a pin hole of an adjacent block disposed therebeneath so as to interlock the blocks with a predetermined setback,

wherein the neck wall members, the pin holes and the pin receiving cavities are positioned such that a first plane extending parallel to the plane of symmetry passes through the first pin receiving cavity, the first pin hole and the first neck wall member and a second plane extending parallel to the plane of symmetry passes through the second pin receiving cavity, the second pin hole and the second neck wall member.

3. The retaining wall block of claim 1 wherein the first and second planes are located approximately midway between the plane of symmetry and laterally outermost points of the first and second side wall faces, respectively.

4. The retaining wall block of claim 1 wherein the first and second pin receiving cavities each have a rear wall extending generally perpendicularly to the plane of symmetry.

5. (Amended) The retaining wall block of claim 1 wherein the block further comprises third and fourth pin holes each disposed in the body portion and opening onto the top face, the third and fourth pin holes being configured for receiving a pin with a free end of the pin protruding beyond the top face, the third and fourth pin holes being disposed on the first and second planes forward of the first and second pin holes so as to provide a reduced or zero predetermined setback.

6. The retaining wall block of claim 1 wherein the side wall faces generally taper from the front face to the rear face.

7. The retaining wall block of claim 1 wherein the head portion has first and second ears extending laterally beyond the first and second neck wall members, respectively, the first and second ears each being provided with a notch to enable the ears to be knocked off the head portion.

8. (Amended) A retaining wall comprising at least one lower course and at least one upper course, each course comprising a plurality of blocks laid in a running bond pattern,

each block having parallel top and bottom faces, a front face, a rear face, first and second side wall faces and a vertical plane of symmetry extending between the front and rear faces, the block comprising:

a body portion including the front face,

a head portion including the rear face,

a neck portion connecting the body portion and the head portion, the body, head and neck portions each extending between the top and bottom faces and between the first and second side wall faces,

an opening extending through the neck portion from the top face to the bottom face, the opening dividing the neck portion into first and second neck wall members extending rearwardly from the body portion to the head portion,

first and second pin holes each disposed in the body portion and opening onto the top face, the first and second pin holes being configured for receiving a pin with a free end of the pin protruding beyond the top face,

first and second pin receiving cavities each disposed in the body portion and opening onto the bottom face, the first and second pin receiving cavities being configured for receiving the free end of a pin received in a pin hole of an adjacent block disposed in the block in the lower course so as to interlock the blocks with a predetermined setback,

wherein the neck wall members, the pin holes and the pin receiving cavities are positioned such that a first plane extending parallel to the plane of symmetry passes through the first pin receiving cavity, the first pin hole

and the first neck wall member and a second plane extending parallel to the plane of symmetry passes through the second pin receiving cavity, the second pin hole and the second neck wall member;

first and second pins disposed in the first and second pin holes, respectively, of a block in the lower course, the first pin having a first free end protruding beyond the top face of the block, the second pin having a second free end protruding beyond the top face of the block, the first free end being received in a pin receiving cavity of a first block in the upper course, the second free end being received in a pin receiving cavity of a second block in the upper course, a continuous cavity being defined by each opening of vertically aligned blocks in the upper course of the blocks communicating with side voids of vertically adjacent blocks in the lower course,

the side voids of a block being defined between the head and body portions on either side of the neck portion of the block.

9. The retaining wall of claim 8 wherein the retaining wall is straight.

10. The retaining wall of claim 8 wherein the retaining wall is curved.

11. The retaining wall of claim 8 wherein the retaining wall is serpentine.

12. (Amended) The retaining wall of claim 8 wherein the retaining wall is reinforced with rebar and grout, a length of the rebar passing through the continuous cavity, the rebar being secured in the continuous cavity with the grout.

13. (Amended) The retaining wall of claim 8 wherein the retaining wall incorporates at least one post extending into the continuous cavity and protruding from the upper course, the at least one post being secured in the continuous cavity with grout.

14. (Amended) The retaining wall of claim 8 wherein the retaining wall incorporates a geogrid tie-back disposed between the upper and lower courses, the geogrid tie-back having apertures and being secured with at least one of the first and second pins passing through the apertures thereof.

15. The retaining wall of claim 9 wherein the retaining wall incorporates a pilaster formed of a column of the blocks set forward from the remainder of the wall.